(DMARDs) in treating RA patients published from 2008-2013 were reviewed. Various treatment sequences were deemed eligible for patients who had failed DMARDs. CEA was reviewed from a societal and payers perspective for various patient subgroups and treatment sequences. **RESULTS:** Nine studies (5 UK and 4 US) were included from a larger set of 30 CEAs. All UK cost effectiveness studies were based on meta-analysis of RCTs and involved full incremental analysis between comparators. Markov modeling framework or discrete event simulation methods were used with ACR or HAQ as the common effectiveness measure vs. the EULAR criteria. Methotrexate (MTX) was cheapest in moderate or severe RA patients who failed DMARDS. Cost /Quality adjusted life years(QALY) estimated for Etanercept ranged between £24,513 (after failing 2 DMARDS) and £28,380 (failing 2 DMARDS in moderate to severe RA). Cost/QALY of £28,305 for Golimumab (failing 2 DMARDS and 1 TNFi); £18,527 for Rituximab (failing TNFi) and £10,698 for Tocilizumab (Rituximab intolerant, failed DMARDS) were reported. CEA for Abatacept was $43,041 for women with moderate to severe RA who had either failed MTX or $45,979 with failed TNF-α inhibitor. Anakinra followed by non-biological therapy was found cheapest in US (albeit the least effective). **CONCLUSIONS:** Quality of reporting was good. Variation in treatment sequence limited direct comparison of estimates between studies. Seven of nine studies used micro-simulation methods and reported various treatment sequences of DMARDs to be cost effective for subgroup of moderate to severe, bio naïve, DMARD or TNFi failure and women with RA. The hurdle for cost effectiveness is raised when CEA estimates fall below payer thresholds or those of the cheapest alternatives.

PMS64

COST-UTILITY ANALYSIS OF APREMILAST FOR THE TREATMENT OF PSORIATIC ARTHRITIS PATIENTS IN SPAIN

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OBJECTIVES: A cost-utility model was developed to assess the impact of placing apremilast, a new oral treatment, before biologics for patients with active psoriatic arthritis (PsA) who failed to respond to or are intolerant of conventional disease-modifying antirheumatic drugs (DMARDs) from a Spain payer perspective. **METHODS:** A 20-year Markov model was developed. Treatment strategies consisted of apremilast before a biologic drug sequence compared with a biologic-only sequence. Sequential biologics were adalimumab, infliximab, etanercept, and golimumab for both strategies. Patients who failed golimumab were assumed to receive best supportive care. The Psoriatic Arthritis Response Criteria was used as the efficacy measure. Drug response rates were obtained from a meta-analysis. All-cause overall mortality was adjusted with a hazard ratio associated with PsA. Resource consumption was estimated by an expert panel, and biologic doses were taken from the summaries of product characteristics. The National Health System (NHS) perspective was considered, including the following costs: drug acquisition (ex-factory price with mandatory deduction), administration (parenteral drugs), and monitoring costs. Unit costs (€, 2014) were obtained from national databases. An annual 3% discount rate was applied for costs and outcomes. Published evidence was used to link HAQ-DI and PASI changes to utilities to generate quality-adjusted life-years (QALYs). Sensitivity analyses were performed to test model robustness. **RESULTS:** The administration of apremilast before a sequence of biologic drugs showed higher effectiveness (9.19 QALYs) than the biologic-only sequence (9.12 QALYs). The strategy with apremilast implied lower total costs (€206,539) than the biologic-only sequence (€215,330). Under base-case assumptions, placing apremilast before biologic drugs is a dominant strategy and it remained a dominant option when the drug order in the biologic-only sequence was modified using sensitivity analyses. **CONCLUSIONS:** The administration of apremilast before biologic drugs is a cost-saving strategy for the NHS in the treatment of patients with active PsA.

PMS65

COST-EFFECTIVENESS OF CERTOLIZUMAB PEGOL FOR THE TREATMENT OF AXIAL SPONDYLOARTHRITIS IN TURKEY

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OBJECTIVES: Axial spondyloarthritis (axSpA) is a rheumatic disease that includes ankylosing spondylitis (AS) and non-radiographic axSpA (nr-axSpA). Certolizumab pegol (CZP) is a PEGylated Fc-free anti-TNF indicated for the treatment of axSpA in Turkey. The objective of this study was to assess the cost-effectiveness of CZP in axSpA patients in Turkey compared to other anti-TNFs and standard care. The study was undertaken from a Turkish healthcare payer perspective. **METHODS:** A Markov model was developed to estimate costs and outcomes associated with CZP and comparator treatment. The clinical response was ASAS20. A mixed treatment comparison was undertaken to compare CZP with adalimumab, infliximab, etanercept and golimumab for the treatment of AS. Similar comparisons were made for the treatment of nr-axSpA, where CZP was compared with adalimumab. Resource utilization data were obtained via expert clinical opinion and included physician visits, monitoring costs, and others. Unit costs were taken from the Social Security Institution's 2015 official price list. Costs and effects were evaluated over a lifetime and discounted at 3% with results presented as incremental cost/life years gained. One-way and probabilistic sensitivity analyses were also conducted. **RESULTS:** The base case analysis for AS, showed that CZP was equally effective and less costly compared to adalimumab, infliximab, etanercept and golimumab. In nr-axSpA, CZP dominated adalimumab. Sensitivity analyses confirmed the robustness of the model. **CONCLUSIONS:** The present analyses showed that CZP is a cost-effective alternative therapy for the treatment axSpA patients in Turkey.

PMS66

PHARMACOECONOMIC ANALYSIS OF DIFFERENT STRATEGIES OF MONOTHERAPY WITH BIOLOGIC THERAPIES IN RUSSIAN PATIENTS WITH RHEUMATOID ARTHRITIS

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OBJECTIVES: To perform comparative pharmacoeconomic analysis of application of tocilizumab and adalimumab in adult patient with active rheumatoid arthritis and intolerance and/or futility of further therapy with basic anti-inflammatory drugs. **METHODS:** A pharmacoeconomic model was created basing on the data of ADACTA clinical trial, which included monotherapy with tocilizumab and adalimumab in a target population of patients (two groups, 100 patients each). Direct financial costs of drug therapy and cost efficiency of competing medical technologies were determined. Measures of efficiency were the reduction of DAS28 disease activity index compared to the initiate level; share of patients with remission of low disease activity according to DAS28 index; share of patients that responded to the therapy according to ACR20/ACR50/ACR70 criteria on week 24. **RESULTS:** Costs of drug therapy per patient were 582,611.52 RUB for tocilizumab, and 493,680.00 RUB for adalimumab. Cost-effectiveness in the reduction of disease activity according to DAS28 index were 176,548.94 in tocilizumab group, and 274,266.67 in adalimumab group. CER with regard to the share of patients with remission were 1,460,179.24 and 4,701,714.29 for tocilizumab and adalimumab, respectively. Cost-effectiveness of the achievement of low activity of rheumatoid arthritis according to DAS28 index also was more favorable in case of tocilizumab (1 131,284.50 and 2,493,333.33). Therefore, cost-effectiveness was always more favorable in the group of tocilizumab. **CONCLUSIONS:** Administration of tocilizumab in adult patients with active rheumatoid arthritis and intolerance and/or futility of further therapy with basic anti-inflammatory drugs was 3 times more cost-effectiveness compared to adalimumab (the ratio may change depending on the efficiency value).

PMS67

BUDGET IMPACT ANALYSIS OF APREMILAST IN PATIENTS WITH PSORIATIC ARTHRITIS IN THE ITALIAN SETTING

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OBJECTIVES: This analysis was designed to estimate the budget impact following the introduction of apremilast in the treatment of active psoriatic arthritis (PsA) for adult patients who have failed to respond to or are intolerant to disease-modifying antirheumatic drugs (DMARDs) in Italy. **METHODS:** A budget impact model was adapted to the Italian context using local epidemiological and cost data. The model was used to assess the financial impact of the introduction of apremilast to the market for the Italian National Health Service (NHS). The analysis was conducted over a 3-year time horizon considering year 2016 as baseline. We used real data of market consumption (IMS 2014 data), reflecting the budget holder's perspective, and a 2015 real-world study concerning the healthcare resource consumption related to each treatment considered (apremilast, etanercept, infliximab, adalimumab, or ustekinumab). Market penetration of apremilast was based on manufacturer's assumptions. Unit costs were taken from Italian standard sources. Frequency of screening and monitoring tests for each treatment was obtained from real-world data. **RESULTS:** A total of ≈16,000 patients were considered as the model population at the first year, with an assumed 4%-6% annual growth rate. The introduction of apremilast over the next 3 years, assuming a market share of 1%-5%, 10%-15%, and 15%-20% for the first, second, and third year, respectively, would lead to cost savings varying from a minimum of €14,500,000 to a maximum of €22,160,000 for the 3 years. In particular, drug savings account for 88% each year, whereas monitoring savings account for 7% and administration savings account for 5%. **CONCLUSIONS:** This analysis suggests that the use of apremilast for the treatment of active PsA may represent a cost-saving option for the Italian NHS over the first 3 years of utilisation.

PMS68

BIOLOGICAL AGENTS FOR PATIENTS WITH RHEUMATOID ARTHRITIS WHO HAD FAILED TREATMENT WITH METHOTREXATE IN THE SPANISH CLINICAL SETTING: A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: The study aimed to assess the cost-effectiveness of abatacept, adalimumab, etanercept, infliximab and golimumab in combination with methotrexate (MTX) in patients with Rheumatoid Arthritis (RA) who fail treatment with MTX from the Spanish Health System point of view. **METHODS:** A Markov model was developed in MS Excel software based on a meta-analysis and an economic evaluation performed by the Canadian Agency for Drugs and Technologies in Health. The model included 7 health states: therapy initiation; clinical response according to ACR 50 (American College of Rheumatology (ACR) response criteria); clinical response according to ACR 20; no response; severe adverse events; change therapy; and death. The cost (€ in 2013) and effectiveness (life years (LY) in ACR 50) for each treatment option were collected over a 5-year time horizon using a cohort of 1,000 Spanish patients with a mean age of 52 years. The structure and the clinical assumptions of the analysis were validated in a Delphi panel composed of 3 clinical experts in order to adapt the model to the Spanish setting. Pharmacological costs were estimated using the ex-factory price discounting the corresponding deduction according to Royal Decrees. Univariate and probabilistic sensitivity analyses were performed. **RESULTS:** The Incremental Cost-Effectiveness Ratio of adalimumab, etanercept, golimumab, infliximab and abatacept came to 13,374€, 20,943€, 27,740€, 32,997€ and 41,704€, respectively. The results of both sensitivity analyses showed the robustness of the model. **CONCLUSIONS:** The present analysis found adalimumab in combination with MTX to be the most cost-effective biological drug for patients with RA who failed treatment with MTX alone in terms of LY in ACR 50 response.